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Notice of Allowability

Application No.

10/690,827

Examiner

Dana Ross

Applicant(s)

YASUDA ET AL.

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 16 September 2005.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

ALLOWANCE

Claim Rejections - 35 USC § 112

1. The claim rejections under 35 USC 112 1st and 2nd paragraphs are withdrawn due to Applicant's amendment filed 16 September 2005.

Allowable Subject Matter

2. Claims 1-11 are allowed.
3. The following is an examiner's statement of reasons for allowance: The prior art neither anticipates nor renders obvious a pallet changer (claims 1 and 10) or a machine tool with a pallet changer (claims 6 and 11) as claimed, specifically wherein the table is driven by a table drive unit so that the table is swingable and positioned while being directed in an upward direction and also making at least an index motion, wherein the table as driven by the table drive unit is also capable of making rotational motion as well as the index motion (claims 1 and 6) or wherein the pallet change arm which is moved up and down ascends up to a predetermined lift position, while the pallet change arm makes the swivel motion and is under a standby condition (claims 10 and 11).

The closest prior art found is US Pat. No. 5,678,291 (Braun, hereafter '291) in view of US Pat. No. 5,992,608 (Ahn, hereafter '608); and in the alternative '608 in view of '291 as is discussed in detail in the previous office action.

'291 teaches a 5-axis machining center (col. 1, lines 30-33, for example) with a vertical spindle movable in three mutually transverse axes (fig. 2, for example) that performs milling and turning (col. 1, lines 14-16 and col. 6, lines 61-65, for example); a table 45 disposed below the

spindle and driven to be swingable while directing upwardly and making at least an index motion (fig. 7, col. 6, lines 18-60, for example);

‘291 does not disclose the claimed pallet changer.

Therefore ‘291 does not anticipate the claimed invention of claims 1, 6, 10 or 11.

‘608 teaches an automatic pallet changer 24 mounted to a machining center (see fig. 1, col. 3, lines 15, for example) provided outside a machining area (col. 2, lines 15-20, for example) with a pallet change arm with gripping portions 34, 38 (see fig. 2, 3 for example) which swivels in the horizontal plane and moves vertically (see col. 3, lines 16-19 and col. 4, lines 1-52, for example).

‘608 does not teach the table is driven by a table drive unit so that the table is swingable and positioned while being directed in an upward direction and also making at least an index motion, wherein the table as driven by the table drive unit is also capable of making rotational motion as well as the index motion (claims 1 and 6) or wherein the pallet change arm which is moved up and down ascends up to a predetermined lift position, while the pallet change arm makes the swivel motion and is under a standby condition (claims 10 and 11).

Therefore ‘291 in view of ‘608, or in the alternative ‘608 in view of ‘291, does not render obvious the claimed inventions.

Furthermore, there is no prior art, either alone or in combination with ‘291 or ‘608 that would render obvious the claimed invention of claims 1, 2, 10 or 11, and no motivation found to modify the prior art to obtain the claimed inventions.

It is noted that US Pat. No. 6,647,605 (Hiramoto et al., hereafter ‘605) teaches a machine tool and its pallet-changing device.

'605 teaches the spindle displaceable in the two directions and a pallet device which swivels and has vertical movement.

'605 does not disclose the index motion and rotational movement of the table, or the pallet change arm which is moved up and down to a predetermined lifted position while the pallet change arm makes a swivel motion and under a standby condition.

Therefore '605 does not anticipate the claimed invention.

Furthermore, there is no prior art, either alone or in combination with '605 that would render obvious the claimed inventions of claims 1, 2, 10 or 11, and no motivation found to modify the prior art to obtain the claimed inventions.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dmr



BOYER D. ASHLEY
PRIMARY EXAMINER